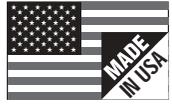


Desert Hothouse™



Planting and Identifying your Plants

Create your own sandy, dusty desert scene. The Desert House comes complete with a variety of cacti and succulents including the Giant Saguaro, Prickly Pear, Golden Barrel Cactus, Joshua Tree, Century Plant, and many more. Design a desert landscape with included gravel, sand, boulders, and desert friends. Easy-to-grow plants will start sprouting in a week and will last for years. And they naturally mimic the art of Japanese Bonsai. Complete growing instructions and care information is included.

There are two types of succulents: leaf and stem succulents—leaf succulents are characterized by thickened leaves; stem succulents are known as cacti. Your Desert Hothouse contains a pack of each. Succulents have mastered the art of water conservation. They have reduced their leaf surface to decrease the loss of water from transpiration (the plant's equivalent of sweating), and they store water in their leaves and stems. An outdoor area landscaped with succulents requires only 20 percent of the water needed by a lawn of the same size. Your Desert Hothouse plastic planting container allows the plants to be watered even less.

Water is stored in the stem of the cactus, aided by flexible ribs which can expand and contract according to the amount of intake and use. Like the ribs and stem, spines help shade the body of the cactus from the sun and protect it from animals looking to access the plant's water supply. Some cacti store as much as 1,000 gallons of water, making them a valuable resource in their often arid climates. Although their blooming period can last as little as one day, cactus flowers are colorful and beautiful.

You can control the sizes of the plants by keeping a collection of succulents in the greenhouse and not transplanting them. The natural root conformation and growth patterns of some succulents are reminiscent of a true Japanese Bonsai.

Contents

- One pack of mixed succulent seed
- One pack of mixed cacti seed
- Desert boulders
- Bag of natural desert sand
- Plastic of three desert friends: snakes and lizards
- Bag of natural desert gravel
- Planting greenhouse
- Planting mixture
- Instruction and information booklet

Planting Your Desert Hothouse

Note: Don't plant all the seeds at once. Plant what you need, and save the rest in case you need to replant; we include enough seeds to replant at least one time.

1. Massage the bag of soil to remove any clumps.
2. Cut open the bag and pour the soil into the greenhouse base.
3. Add $\frac{3}{4}$ cup of water, and let it absorb.
4. Mix water and planting mixture thoroughly with a spoon.
5. Add another $\frac{1}{8}$ - $\frac{1}{4}$ cup of water and smooth the surface.
6. To lay stone or sand, first press down firmly on the moist soil to make a depression, then fill with the sand or gravel.

7. Save the bag of gravel for when you plant your seeds.
8. Place the desert boulders and desert friends where you would like them.
9. Once your paths and boulders are laid, you can plant the seed.
10. Sprinkle small seeds on the surface of the soil (they need light to germinate)
11. Slightly cover larger seeds.
12. Cover hard flat seeds with a layer of gravel and press down on surface of the soil
13. Put the top on your planted greenhouse and place it in a windowsill or very near a window. A western or southern exposure is best. An eastern exposure is okay, but a northern exposure should be avoided.
14. Seeds will germinate in 1 to 6 weeks

Caring For Your Desert Hothouse

Watering

- If you overwater the terrarium, tip it gently to pour out the extra water, leave the top off, and place it in an area with a southern exposure until desired moisture level is reached.
- Your growing mixture is inert and contains no fertilizer. For maximum growth, fertilize your cacti and succulents in the spring and summer with a water-soluble houseplant food or time-release pellets.
- It is advisable to remove the top and let the planter dry out between waterings a few times a year. Do not do this until your plants are at least six months old.

Location

- The best location for your terrarium is on a windowsill with a Western or Southern exposure. Be sure the window is not drafty.
- Your plants thrive in bright direct light and can live in bright indirect light.
- Your plants will naturally reach toward the light, so rotate your greenhouse every week. If they are stretching too much, they may need more light.
- Do not place your terrarium close to a heating or cooling vent.
- Do not place your terrarium outside in the hot sun. The temperature inside the terrarium will rise to levels that are not safe for the plants. You may place it outdoors in the shade and when it is below 80 degrees (26° Celsius).
- A common problem with terrariums is that they are easily knocked over. Keep this in mind as you choose the location for your windowsill greenhouse.

Other Notes

- If mold forms, remove it with a twig or water the greenhouse with a 1:50 mix of hydrogen peroxide to water.
- If you remove the top to allow the plants to grow larger, be sure to check the moisture level every few days.
- You can trim your plants back. It is important to cut them above a set of leaves and to water afterward, as pruning can be a shock to some plants.
- It is okay to let the plants bloom, but keep the plants from going dormant by trimming off any seed pods before seeds form.
- You can transplant your plants into other containers. Be sure to water first, and remove as big of a ball of soil around the roots as you can. To replant, make sure the soil in the new container is moist, place the soil ball into a pre-dug hole, and water thoroughly.

Interesting Information About Select Varieties of Plants in Your Garden

Plants in Your Succulent Seed Pack

Century Plant, American Aloe (Agave Mix: *salmanian*, *stricta*, *Americana*, *filifera*)



This large genus has more than 200 species, and the leaves of each are very different. The *stricta* has long thin green leaves; the *filifera* type has medium-wide, flat, dark green leaves; and the *Americana* has gray-green leaves with yellow stripes.

Green Mexican Sotol (*Dasyliirion Atrotriche*)

The Sotol plant is found in dry, mountainous areas and deserts in the United States and Mexico. This genus of 18 species of yucca-like plants includes a variety of evergreen shrubs, trees, and perennial succulents. The very long, slender, stemless leaves form a fountain-like rosette up to six feet in diameter.

Red Yucca (*Hesperaloe Parviflora*)



This rare plant occurs in the semi-arid regions of Texas and North Mexico. The genus has only three species. These plants are closely related to Yucca's although their flowers are more similar to Aloes.

Your pack also contains Mexican Desert Pony Tail Palm (*Nolina Longiflora*) and our Premium Yucca Mix (*rostrata, brevifolia, faxonii, glauca, rigida*) of Joshua Tree, Dagger Plant, and Adam's Needle.

Plants in Your Cacti Seed Pack

Giant Saguaro (*Carnegiea Gigantea*)



Originally called *Cereus Giganteus*, this variety was renamed in 1908 to honor industrialist Andrew Carnegie. It is the familiar cacti often shown in western films and is the state flower of Arizona. These cacti originated in Arizona, where more than 78,000 acres were set up exclusively for its growth at the Saguaro National Monument. One of the largest and most slow-growing cactus, it can grow taller than 60 feet, live longer than two centuries, and weigh up to 20,000 pounds. These cacti provide a habitat for many desert creatures including the white-winged dove, the gila woodpecker, the cactus wren, and the elf owl. The plant bears edible red fruit, which was used by the Papago as a dietary staple. Native Americans also ground the seeds of this plant to make flour. The plant branches off, but only after it is 15 to 30 years old and taller than seven feet; it generally does not flower until it is at least 30 years old. Since this plant blooms at night, the long-nosed bat is its primary pollinator.

Golden Barrel Cactus (*Echinocactus Grusonii*)



This plant originated in central Mexico. Its name comes from the Greek word "echinos," which means prickly, because of the dense coat of gold-yellow spines that cover its green body. It is spherical when young and becomes elongated with age. This cactus flowers after it reaches 15 inches in diameter, a process that can take more than 20 years; the plant will ultimately grow to four feet high and three feet wide. Native Americans used the hollowed out barrels of this cacti for cooking devices. The strength of the spines prevented the body from caving in during cooking over hot rocks. Although commercial stock of this plant is available, these cacti are on the verge of extinction in the wild.

Strawberry Cactus (*Echinocereus Engelmannii*)



This cactus is originally from New Mexico and Texas. The name is derived from the Greek word "echinos," which means prickly, and the Latin word "cereus," meaning wax candle. Cacti generally have a waxy texture to help them reduce water loss. This is a relatively short cactus, not reaching heights of more than 12 inches. However, it forms a clump and spreads into a large cluster. The red fruit, known in Mexico as pitaya, is the size and flavor of a strawberry; it's used to make jam in southern Texas.

Fishhook Barrel Cactus (*Ferocactus Wislizeni*)



This plant, widely found in Texas, New Mexico, Arizona, and parts of Mexico, has distinctively patterned red or rust colored and white spines on its light green body. All the hooks on the spines of the cactus point downward. The generic name of the plant comes from the Latin word "ferus," meaning wild or fierce, which describes its prickles. The stem is spherical at first, but becomes columnar with age, reaching a height of more than six feet. This flesh of this cactus can be candied in a sugar solution to make sweets. For this reason, it has been known as the Candy Barrel Cactus, as many of these plants have been used and destroyed to make candy.

Chin Cactus, Spider Cactus (*Gymnocalycium Mix*)



These cacti originate exclusively in South America, with most varieties from Argentina. There are more than 80 varieties in this species. These cacti typically need less light than many other cacti and are small and compact; thus they

have been called the perfect cacti for windowsills and limited spaces. They will bloom often and at an early age in white, pink, and sometimes red flowers.

Pincushion Cactus (*Mammillaria Mix*)



With more 200 species, this is one of the largest genera in the Cactus, or Cactaceae, family. These plants are found in Central and Northern Mexico, as well as the Southwestern US. They range from one to 12 inches tall and up to eight inches in diameter. They are small, free blooming cacti that are easy to raise and take care of. One of the best blooming cacti, it is an excellent choice for beginners. They are divided into two groups: the pincushion varieties have straight spines and the fishhook varieties have curved spines. The curved spines of some varieties were used as fishhooks for centuries. The chili shaped fruits are called "chillitos" in the Southwest and have a sharp strawberry taste.

Your Cacti Seed Pack contains a number of other varieties of cacti as well.

Terrariums - General Information, History How They Work

General Information

Terrariums, a favorite since the 1800s, continue to enjoy popularity today. Creating a terrarium is easy, fun, and inexpensive. Care is minimal and they can go for months without water under proper conditions. Also, a wide variety of plants can be grown that would normally fail in the dry, drafty environment of the average home. Avid gardeners celebrate terrariums as a way to extend their gardening season all year long.

History

Terrariums are miniature, self-contained eco-systems. Once created, these closed environments can go for months unattended without even the addition of water. The history of terrariums is rooted in the Victorian Age where they were used in parlors to house delicate and exotic plants.

The invention of the terrarium is credited to Dr. Nathaniel Ward, a London physician who discovered it by accident. While experimenting with cocoons in covered jars, he found tiny plants growing and thriving in the soil of the jars, even as plants in his backyard were dying from polluted air. Next, he successfully experimented with growing ferns in covered containers. The result: the first terrariums, then known as "Wardian cases." These were large, enclosed containers used for growing delicate plants in the home or transporting plants over long distances. The terrariums used most often today are small, ornamental versions of the Wardian case.

How They Work

Terrariums are a self-contained environment. Once planted, they need nothing from the outside except a little indirect sunlight; they can even go without water for a long period of time. Moisture in the terrarium evaporates from the soil and plant leaves, condensing on the roof and walls. The condensed water drips down, remoistening the soil in a continual closed-loop process. The atmosphere inside is jungle-like, with high humidity, warm temperatures, and no drafts—perfect conditions for many of the tropic-native houseplants that are common today. As long as the terrarium's top is sealed, this process can continue for months or even years.

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